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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gianrico Scarton

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EXAMINER

COLILLA, DANIEL JAMES

ART UNIT

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2854

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,853	Applicant(s) SCARTON, GIANRICO	
	Examiner Daniel J. Colilla	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

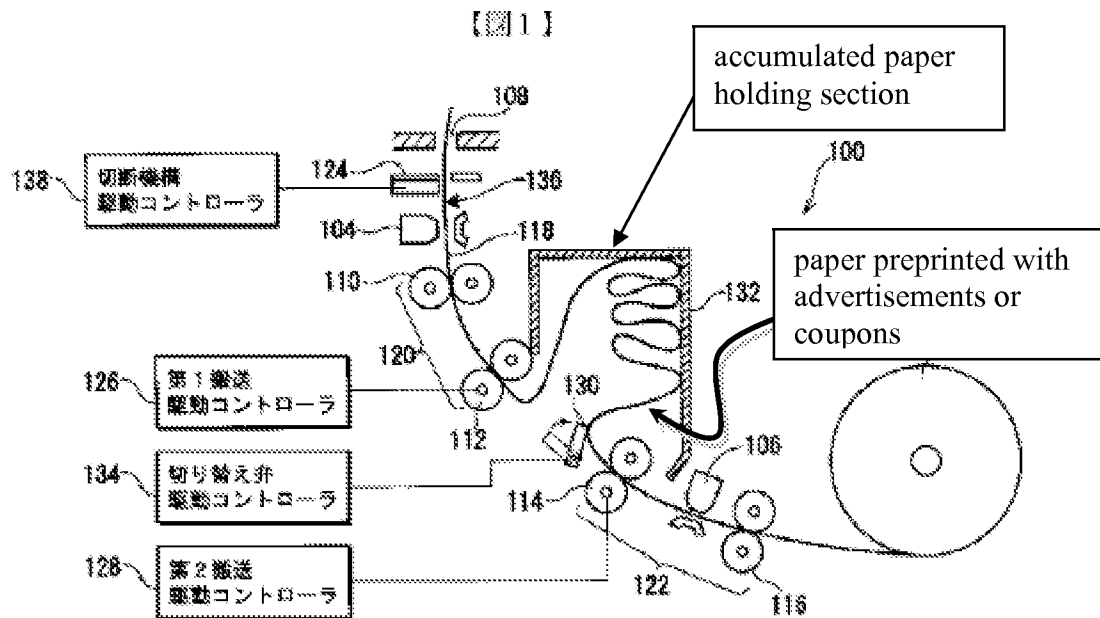
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-7 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Minowa (JP 2003-251595).

First an overview, according to the examiner's understanding, of how the printer disclosed by Minowa works may be helpful.



Minowa discloses a receipt printer with an ink jet printhead 106 and a thermal print head 104. The ink jet printhead 106 is used for printing coupons or store advertisements on the back of the receipt and the thermal print head 104 is used for printing the information regarding the financial transaction that has taken place. In order to reduce time for printing a receipt after the print command is sent to print the financial transaction data, the coupons or advertisements are preprinted on the back of a certain length of the continuous receipt paper. This printed length of paper is then accumulated or stored in the holder section formed by guide 132 as shown above. Thus when the print command for printing financial data by the thermal head is sent the printed length is fed out from the holding section 132 past the thermal head and cut for the customer to receive.

With respect to claim 1, Minowa discloses a printing device 100 for receipts, each receipt having a first area bearing constant data (back side of paper ribbon), that is the same from

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one receipt to another, and a second area (front side of paper ribbon) bearing variable data that varies from one receipt to another, said device comprising:

- a roll containing a continuous paper ribbon 102,
- a first printing unit, ink jet, dot-matrix type 106,
- a second printing unit thermal, dot-matrix type 104, said first and said second printing units being arranged along said a print path (as shown in Fig. 1 of Minowa),
- a feeding means mechanism 120,122 for feeding that feeds said paper ribbon along said print path to permit printing of said paper ribbon by said first and said second printing units, and a cutter 124 that cuts said continuous paper ribbon after the printing, so as to form the receipts, and

- a control unit 202 connected to said first ink jet printing unit 106 and said second thermal printing unit 104, the control unit adapted to cause, for each receipt, said first ink jet printing unit to print on said paper ribbon said constant data (referred to as additional information by Minowa, Solution portion of the abstract), and to cause said second thermal printing unit 104 to print on said paper ribbon said variable data (referred to as accounting information by Minowa, Solution portion of the abstract).

Applicant's attention is invited to paragraph [0004] where applicant states that the additional information can be information that is only changed periodically. Thus for the time between changes of the additional information, this information is constant.

With respect to claim 2, Minowa discloses that the continuous paper ribbon comprises heat-sensitive thermal paper (Minowa, paragraph [0027], lines 4-5) and said second printing unit

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104 is adapted to print on said thermal paper by selectively heating dot-like areas of said thermal paper (inherent in this type of thermal printing).

With respect to claim 4, Minowa discloses that the control unit 202 is adapted to manage the operation of a said printing device so that said first ink jet printing unit 106 prints said constant data for each of said receipts, automatically and independently of said variable data, during a first preliminary step. In paragraph [0042] Minowa states:

The additional information printing job 400 is started, when the quantity of the rolled paper which was able to be stored to the paper holding part of the printer 100 becomes less by printing of settlement information and is less than the specified quantity (a part for for [sic] example, a number transaction). Namely, when the accumulation length updated by the accumulation length calculation part 222 after printing of settlement information becomes below in the specified quantity, [the prime controller 202] Instructions are sent out to the 2nd printing head controller 216 and the 2nd conveyance drive controller 212, the ink jet printing head 106 and the 2nd transportation part 122 are driven, and the additional information printing job 400 is started.

And said second thermal printing unit 104 prints, in response to a print command, said variable data received from said control unit and relative to each of said receipts, during a second printing step following the first printing step. In paragraph [0045]-[004 Minowa explains the printing of the settlement information (aka accounting information or financial transaction information):

Here, rolled paper whose specified quantity (a part for for [sic] example, a number transaction) has been additional information printed beforehand exists in a paper holding part of the printer 100, and explanation is advanced on the assumption that the accumulation length is further memorized on RAM206.

[0046]If the settlement information which should be printing-ordered and settlement information should print from a POS terminal computer is received. . .

[0047]If it is judged that a marker is in the right position at Step 502 or rolled paper is conveyed at Step 504 in the right position, printing of the target settlement information will be performed (S506).

With respect to claim 5, this claim recites functions that apparently should be attributed to the structure of the controller rather than the ink jet printing unit. As it stands it is considered a desired use without any particular further limiting structure recited. However, Minowa

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discloses that the first ink jet printing unit is adapted to print said constant data in response to a signal generated after the cutting of a receipt as mentioned in paragraph [0048]-[0049] of

Minowa:

[0048]After printing of the settlement information in Step 506 is completed. . . the cutting machine style 124 drives, cutting separation is carried out the inside side of a printer case, and the rolled paper tip portion in which settlement information was printed by the front side and additional information was printed by the back side will be in the state which can be handed over to a user (S514).

[0049]Next, in Step 516, the update process of accumulation length is performed in consideration of sending of the rolled paper conveyed in relation to printing of said settlement information. That is, the accumulation length calculation part 222 is started, based on each data of the accumulation length in front of on RAM206.

With respect to claim 6, this claim recites functions that apparently should be attributed to the structure of the controller rather than the thermal printing unit. Applicant could recite this limitation in a structural manner by attributing the function to the controller. However, Minowa discloses that printing speed of an ink jet printing head is slower than the printing speed of a thermal head (Minowa, paragraph [0028], lines 9-12).

With respect to claim 7, Minowa discloses that the ink jet printing unit can be color (Minowa, paragraph [0005]). Ink jet printers are inherently capable of printing predetermined symbols and/or characters.

With respect to claim 11, Minowa discloses the method of using the structure as recited above in the rejections of claim 1 and 4.

With respect to claim 12, Minowa discloses that the speed of said second thermal printing unit 104, during said second printing step, is greater than that of said first ink jet printhead 106, during said first printing step (Minowa, paragraph [0028], lines 9-12), when printing a respective stretch of said ribbon of thermal paper having a given length.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minowa (JP 2003-251595) in view of Tischer (US 2003/0156877).

Minowa discloses the claimed printing device except for the roll of paper consisting of plain paper and the ink ribbon. However, Tischer teaches that thermal printers such as the type that print on heat sensitive paper (direct thermal) and the type that prints with an ink ribbon (thermal transfer) can be used interchangeably (paragraph [0051]). It would have been obvious to use the plain paper with ink ribbon type thermal transfer printing unit for the advantage of being able to print on plain paper.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minowa (JP 2003-251595) in view of Smolenski (US RE38473).

With respect to claim 8, Minowa discloses the claimed printing device except that it is not known to the examiner if the second thermal printing unit is of the in-line type. However, Smolenski teaches a receipt printer including a thermal printing unit which has a in-line thermal printhead 6. As shown in Fig. 1 of Smolenski the printhead 6 is arranged in a fixed position transversally with respect to the paper ribbon 10 and also having a width substantially

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corresponding to that of a single line to be printed said paper ribbon 10. It would have been obvious to combine the teaching of Smolenski with the printing device disclosed by Minowa for the advantage of printing a whole width of the paper ribbon at once thus making the printing job print faster.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minowa (JP 2003-251595), as applied to claim 11 above, and further in view of Koshimizu (JP 9-226184).

Minowa discloses the claimed method for printing except that he is silent on how the variable data is received by the printer. Minowa discloses that the constant data is pre-stored in a EPROM 208 in control unit 200 of the printer (Minowa, paragraph [0039]). Koshimizu teaches a keyboard for inputting various kinds of data (paragraph [0016]). In order to process a sale, one would inherently have to use the keyboard for entering the sale information (see also paragraph [0015] of Koshimizu that teaches sale information is printed). It would have been obvious to combine the teaching of Koshimizu with the method disclosed by Minowa for the advantage of an expedient way of entering financial information into the printing unit.

Allowable Subject Matter

8. Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. The following is a statement of reasons for the indication of allowable subject matter:

Claims 9-10 have been indicated as containing allowable subject matter primarily for the ink jet printing unit being arranged downstream of the second thermal printing unit.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel J. Colilla** whose telephone number is **571-272-2157**. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Judy Nguyen** can be reached at **571-272-2258**. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 15, 2010

/Daniel J. Colilla/
Primary Examiner
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